The rise of user-web interaction and networking, coupled with technological advances in processing power and storage capability, has led to a growing demand for effective and sophisticated techniques for discovering and managing knowledge.

The master will equip students with the fundamental knowledge, technical skills and concrete applied methodologies for exploiting and making sense of large real-world data sets, which are typically very large and may consist of multiple heterogeneous databases and knowledge bases. In particular, students will acquire experience in using and developing data-supported smart services and tools for data-driven decision making and will learn how to master technical and scientific challenges in processing large data and knowledge.
PEDAGOCICAL OBJECTIVES

The curriculum brings together a variety of subjects from the fields of data management, knowledge management and knowledge engineering, and machine learning and data mining. Topics include system design and architecture, storage, indexing and optimization, data analytics, knowledge representation and reasoning, semantic interoperability, and data mining, all with a special focus on processing very large amounts of data.

The unique combination of these disciplines distinguishes us from the other M2 tracks in the “DataSense” platform that focus either on data management or machine learning and data mining. Another key feature is that the Data&Knowledge track will be in English.

PEDERCTIVES

Research: The combination of big data and semantics in all of its forms is an active field of research. Students will be prepared for research in Web technologies, the Social Web, Data Analytics, Big Data Management, Knowledge Base Management, Information Extraction, Information Retrieval, Databases, Data Warehousing, Knowledge Representation, and Distributed Data Management.

Professional careers: The Data&Knowledge track will prepare students for careers as information management professionals or data-savvy IT generalists. Targeted job profiles are software engineer, data scientist, software and system architect, quality engineer, project manager, or engineer.

RESEARCH

About 20 laboratories are associated to Université Paris-Saclay's Master in Computer science, opening the path to pursue a PhD. Several of them have teams working specifically on the topics broached by the D&K Master courses. In the D&K program, students will have the possibility to write a Master’s thesis in these laboratories, thus preparing the ground for a PhD if they so wish.

SOCIOECONOMICS PARTNERS

As a part of Université Paris Saclay, the Master program enjoys the privilege of a closely knitted environment that regroups many economical players in the field of information sciences and technologies. The clusters «Systematic» and «Cap Digital», as well as organizations such as IRT SystemX and Incuballiance, are particularly involved in the activities of the academic and scientific community. They co-organise or participate in events that allow students to connect to the job market.

APPLICATION

1. Graduates with a Bachelor of Science in Computer Science (or an equivalent qualification) are admitted by application.
2. For Élèves d’école d’ingénieur, additional terms may apply. Please enquire with your school.

For all: download and complete the application file at: www.universite-paris-saclay.fr

For international students (non EU): if appropriate, also fill out an application on the Campus France website via http://www.campusfrance.org